Network Vandal Dome

User's Manual

Version: 1.2

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1. Preface

IP Vandal Dome is a professional CCD IP Vandal Dome. It builds in web server. User views real-time video via IE browser. IP Vandal Dome supports MPEG-4 video compression which provides smooth and high quality video. The video can be stored in the SD card, and can be playback remotely.
Vandal Dome is an easy-to-use IP Vandal Dome which is designed for security application.

2. Product Specifications

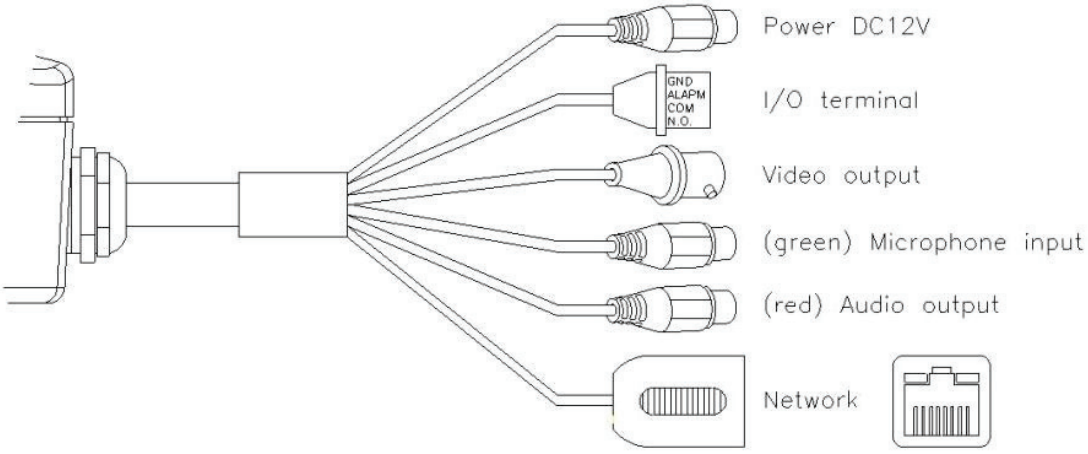
- MPEG-4/MJPEG compression
- Supports SD card for local recording
- 2-way audio
- P-412 built-in IR LED for day/night usage
- Online firmware upgrade
- Real-time video recording
- Compatible with Microsoft Windows Media Player
- Unbreakable housing
- Support IP66 water proof standard

Hardware		
Model	P-411	P-412
Picture Elements H×V	NTSC:510×492 PAL: 500×582	NTSC:768×494 PAL: 752×582
Horizontal Resolution	More than 420 TV Lines	More than 540 TV Lines
Image sensor	1/3” CCD	
Lens Changeable	3.7~12mm vari-focal lens,F1.6	
IR LED	-	IR LED Built-in
CPU	ARM 9 ,32 bit RISC	
RAM	64MB	
ROM	8MB	
Video Out	1 Vp-p, 75 Ohms	
I/O	1 in/ 1 Relay out (COM. & N.O.)	
Audio in	1	
Audio Out	1	
Power Consumption	DC 12V, 490mA	
Dimensions	126mm (W) x 126mm (L) x 100mm (D)	
Network		
Ethernet	10/ 100 Base-T	
Network Protocol	HTTP, TCP/ IP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP	
System		
Video Resolution	NTSC: 720x480, 704x480, 352x240, 176x120	
	PAL: 720x576, 704x576, 352x288, 176x144	
Video adjust	Brightness, Contrast, Saturation, Hue	
CCD setting	BLC	
Image snapshot	Yes	
Full screen monitoring	Yes	
Compression format	MPEG-4/MJPEG	
Video bitrate adjust	CBR, VBR	
Motion Detection	Yes, 3 different areas	
Triggered action	Mail, FTP, Save to SD card	
Pre/ Post alarm	Yes, configurable	
Security	Password protection	
Firmware upgrade	HTTP mode, can be upgraded remotely	
Simultaneous connection	Up to 10	

Audio		Yes, 2-way
SD card management		
Recording trigger		Motion Detection, IP check, Network break down (wire only)
Video format		AVI, JPEG
Video playback		Yes
Delete files		Yes
Web browsing requirement		
OS		Windows 2000, XP, 2003, Microsoft IE 6.0 or above
Hardware	Suggested	Intel-C 2.0G, RAM: 512MB, Graphic card: 64MB
	Minimum	Intel-C 1.6G, RAM: 256MB, Graphic card: 32MB

3. Product Installation

A. Hardware Installation

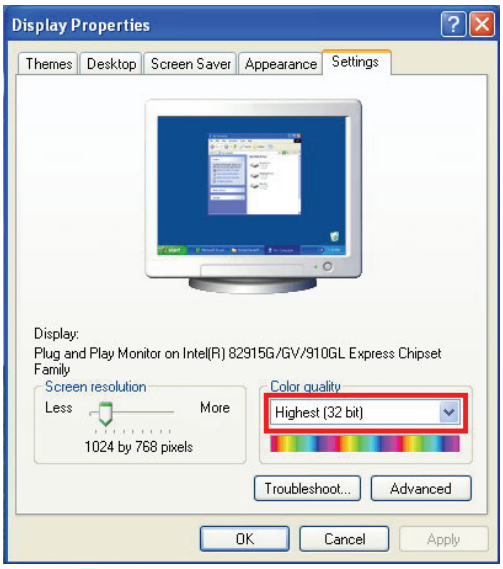


1. Connect power adaptor
2. Connect Ethernet cable
3. Set up the network configurations according to the network environment. For further explanation, please refer to chapter 6.

B. Monitor Setting

1. Right-Click on the desktop. Select [Properties]

2. Change color quality to “Highest (32bit)”.



C. IP Assignment

IP Installer is a utility that provides an easier, more efficient way to configure the IP address and network settings of the network camera. It even provides a convenient way to set the network settings for multiple devices simultaneously using the batch setting function. Moreover, IP Installer can save the network settings for all devices as a backup and restore them when necessary.

- Always consult your network administrator before assigning an IP address to your server in order to avoid using a previously assigned IP address.
- Ensure the network camera is powered on and correctly connected to the network.
- MAC Address: Each network camera has a unique Ethernet address (MAC address) shown on the sticker of the camera.
- One final note, although the IP Installer is able to find and configure any network camera on the LAN except those that are behind a router, it is a good idea to set the host PC to the same subnet. In order to connect to the Web-based user interface of the network camera, the host PC must be in the same subnet. For more information about subnets, please consult your network administrator.

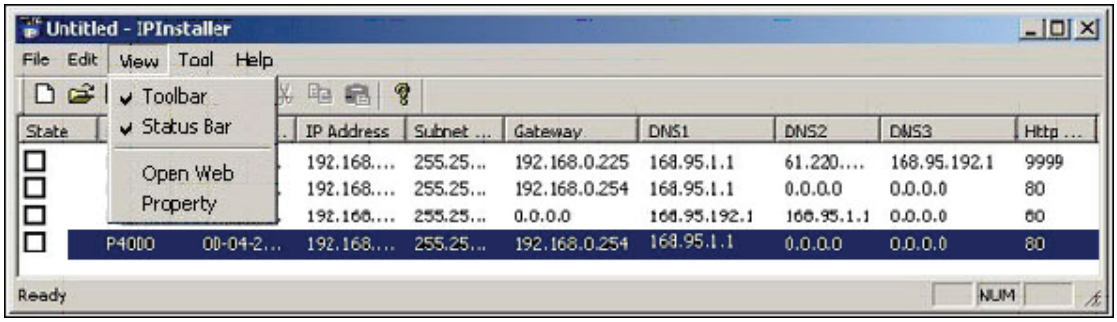
1. Use the software, “IP Installer” to assign the IP address of P405M. The software is in the attached software CD.

2. Click “IP Installer” from the CD menu to start the installation.
3. Once IP Installer has been successfully installed on the computer, double click the IP Installer icon on the desktop, or select it from **Start > Programs > PiXORD Corporation > IP Installer > IP Installer**.

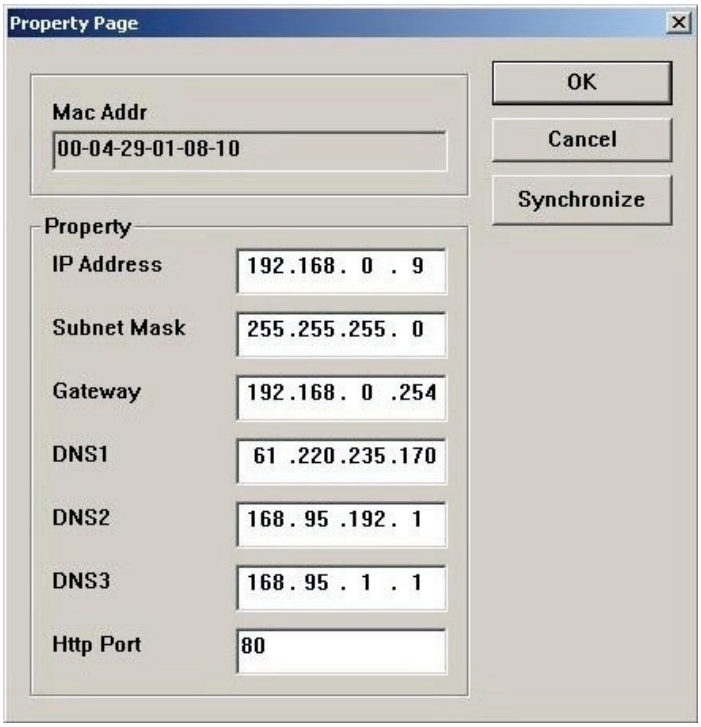
4. The IP Installer window is displayed below. Click the menu bar Tool > Search Network Device to search the network camera in the LAN.

5. From the list, select the device with the MAC Address that corresponds to the device that is to be configured.

6. Double click the item to open the Property Page dialog box for the selected device or click the menu bar **View > Property**.



7. After filling in the properties, click [**Synchronize**] button to complete the configuration settings and save in the network camera and PC immediately. If click **[OK]** button, the configuration is only be saved in the PC.

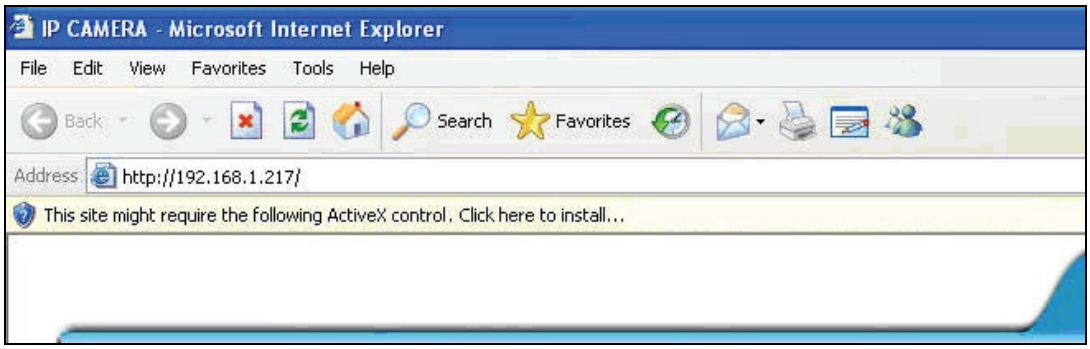


8. To access the Web-based UI of the selected unit, run the **View > Open Web** on the menu bar.

9. If the device has been configured correctly, the default Web browser will open to the home page of the selected device.

D. Install ActiveX Control

For the first time to view the camera video via IE, it will ask you to install the ActiveX component.

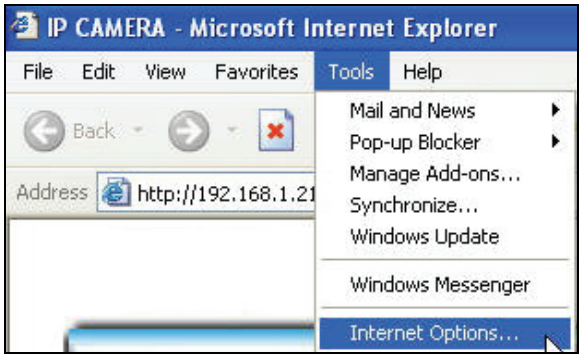


If the installation failed, please check the security setting for the IE browser.

1. IE → Tools → Internet Options… → Security Tab → Custom Level… → Security Settings → Download unsigned ActiveX controls→ Select “Enable” or “Prompt”.

2. IE → Tools → Internet Options… → Security Tab → Custom Level… →Initialize and script ActiveX controls not marked as safe → Select “Enable” or “Prompt”.

1



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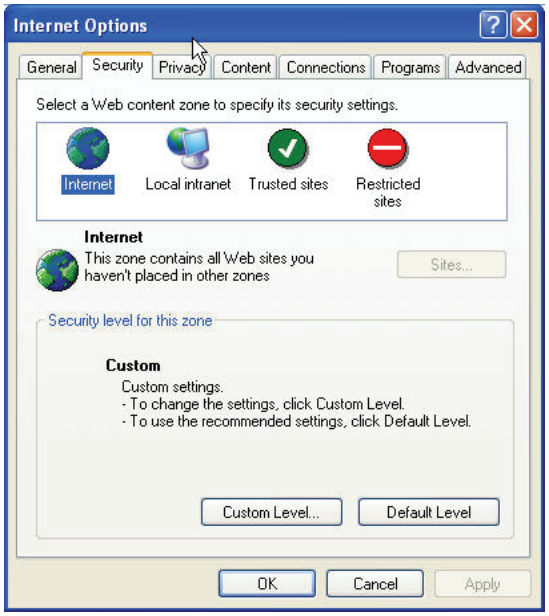
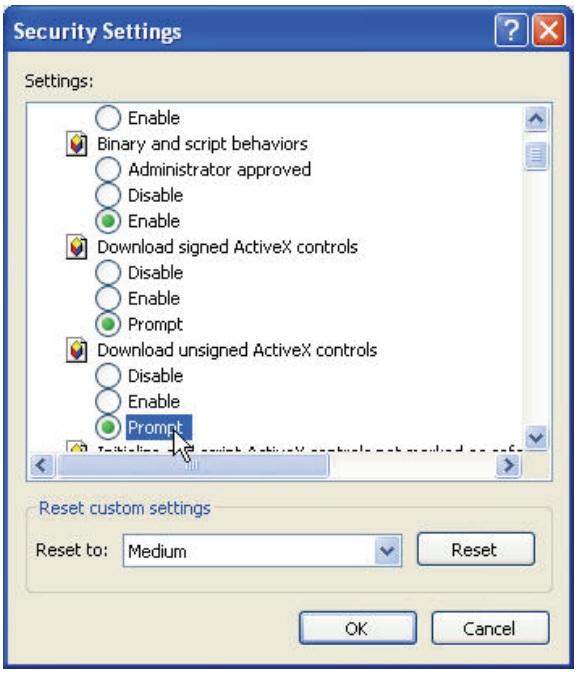
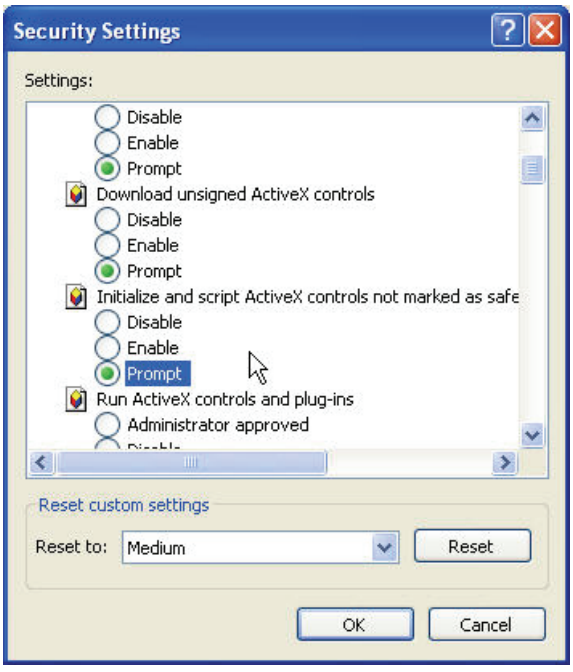


3

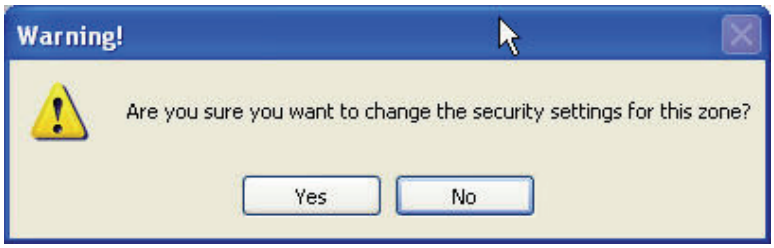


4



5

When popup the following dialogue box, click [Yes].



4. Live Video

Start the IE browser, type the IP address of the network camera in the address field. It will show a dialogue box. Key-in the user name and password. The default user name and password are “**admin**” and “**admin**”.

When connect to the IP Vandal Dome. The following GUI shows.

① Languages: Select the language to display the user interface. There are English, Traditional Chinese, and Simplified Chinese can be selected.

② Actual Size: Select this item to display the live video with actual resolution.

③ [Snap Shot]: Video Snapshot.

④ [Configuration]: Get into the administration page.

⑤ Chatting: IP vandal dome supports 2-way audio. Click the “Chatting” check box. Then

you can use microphone which connect to the PC to talk to server side, which is IP Vandal Dome side.

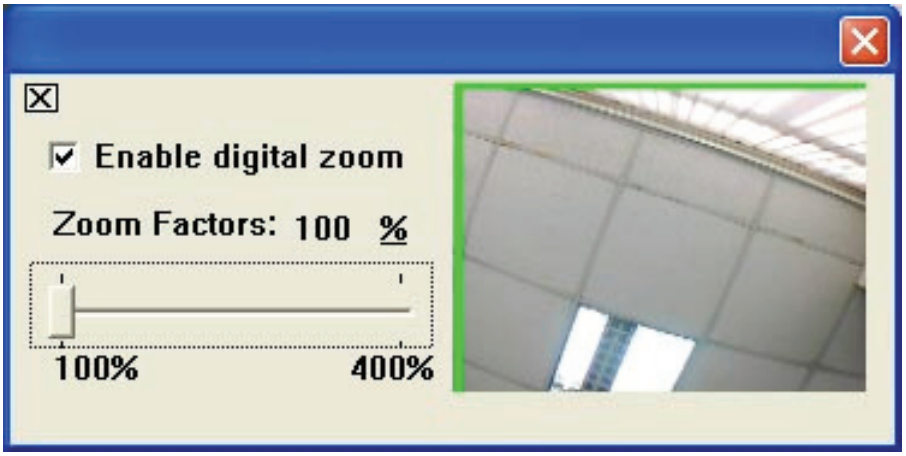
⑥ Shows how many users connect to this network camera.

⑦ Show system time, video resolution, and video refreshing rate.

Double-click the video, it will change to full screen mode. Press [Esc] key or double-click the video again, it will change back to normal mode.

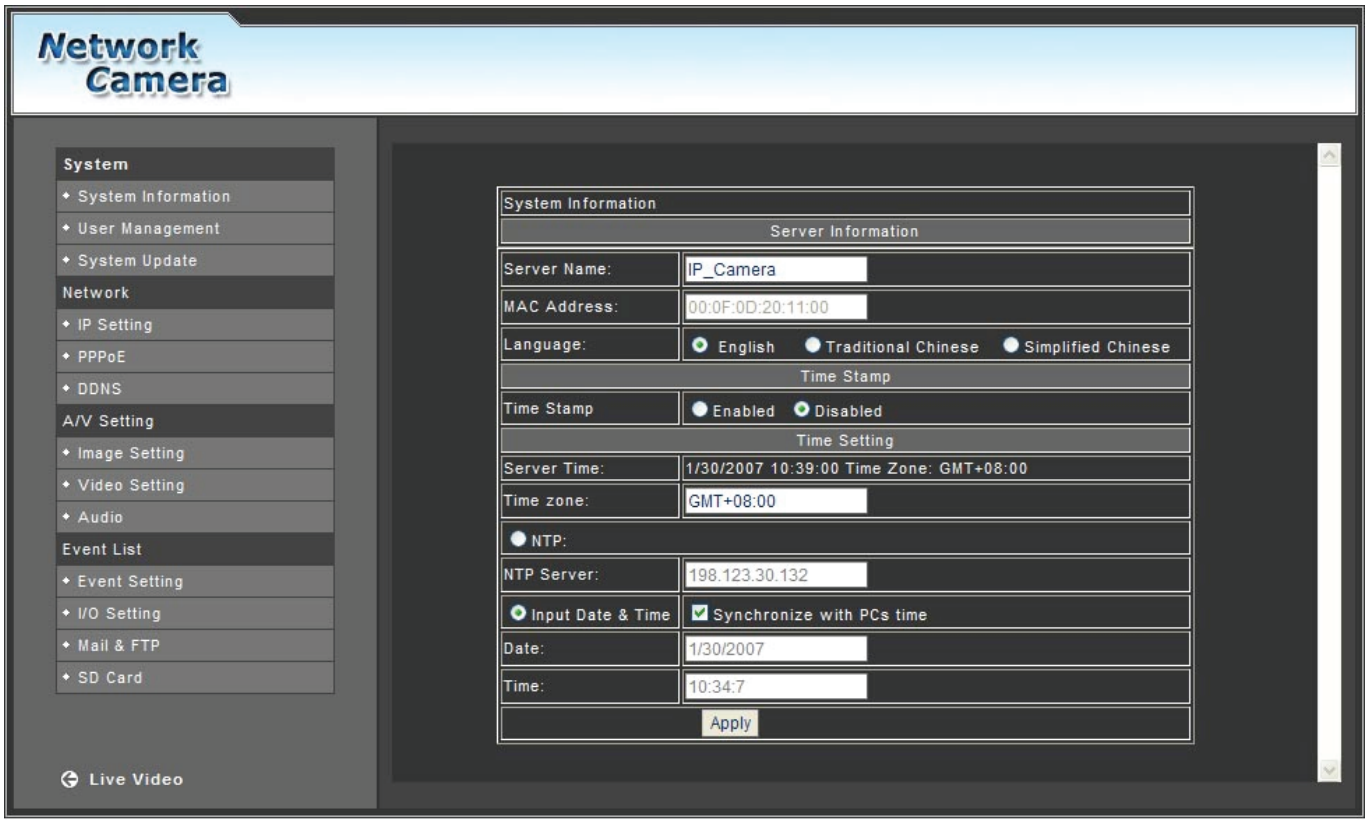
Right-Click the mouse on the video, it will show a pop-up menu.

1. [Snapshot]: Save the video as a jpg picture.
2. [Record Start]: Record the video in the local PC. It will ask you where to save the video. To stop recording, right-click the mouse again, and select [Record Stop]. The saved video format is AVI. Use Microsoft Media Player to play the recorded file.
3. [Mute]: Turn off the audio. Click again to turn on it.
4. [Full Screen]: Full-screen mode.
5. [Zoom]: Zoom in the video.



5. Configuration

Click [Configuration] to get into the administration page. Click [Live Video] to back to the live video page.



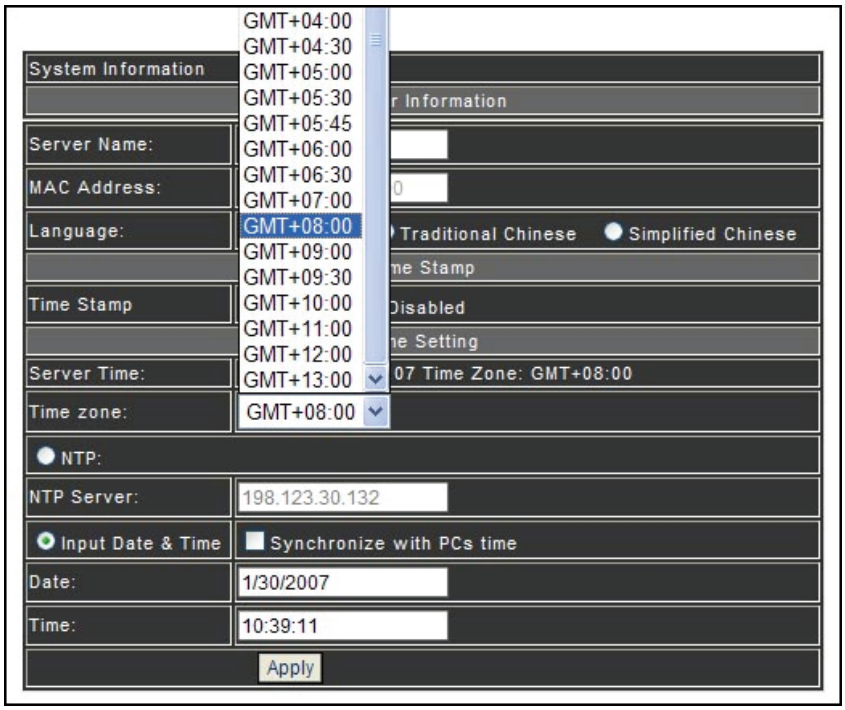
A. System

1. System Information

Set up the camera name, select language, and set up the camera time.

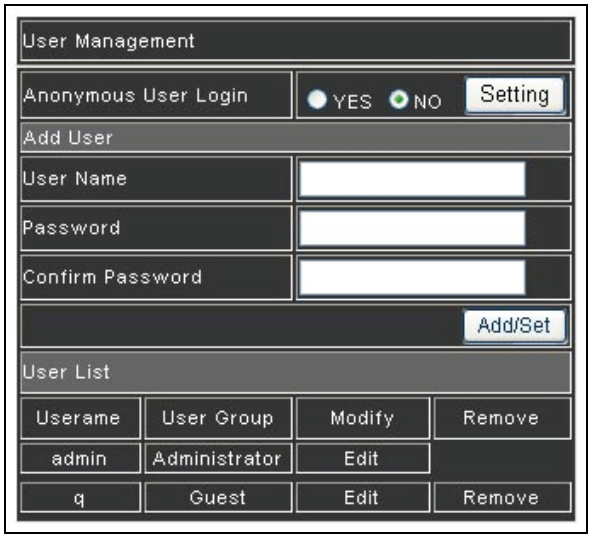
a. Server Name: This is the Camera name. This name will show on the IP Installer.
b. Select language: There are English, Traditional Chinese, and Simplified Chinese can be selected. When change, it will show a dialogue box for the confirmation of changing language.

c. Time Stamp: Enable this option will display the time on the video.
d. Time setting: Use NTP or Input Date & Time manually.
   - GMT: Select the GMT to match your time zone.
   - NTP: Select this option will synchronize the local time with the NTP server via network automatically.
   - Input Date & Time: Manually input the date and time.
   - Synchronize with PC time: Select this option will synchronize the local time with the PC's time.
e. Click [Apply] to save the settings.



2. User Management

IP Vandal Dome supports three different user groups: administrator, general user, and anonymous user.

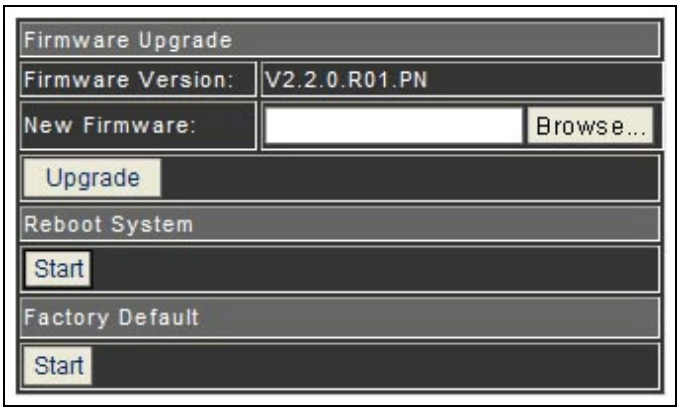


a. Anonymous User Login:
Yes: Allow anonymous login.
No: Need user name & password to access this network camera.

b. Add user:
Type the user name and password, then click [Add/Set].

c. Click [Edit] or [Remove] to modify the user.

3. System Update



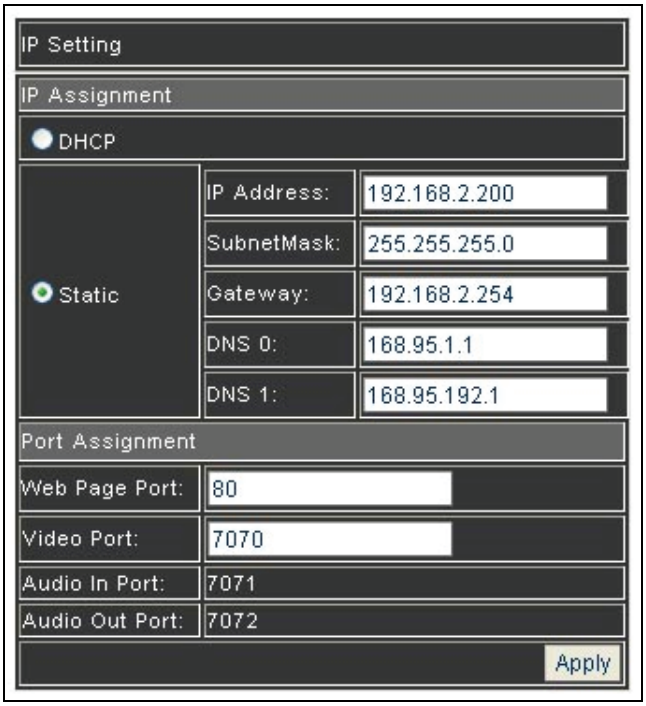
To update the firmware online, click [Browse…] to select the firmware file. Then click [Upgrade] to the procedure.

Reboot system: Re-start the network camera

Factory default: Delete all the settings in this network camera and backs to the factory default values.

B. Network

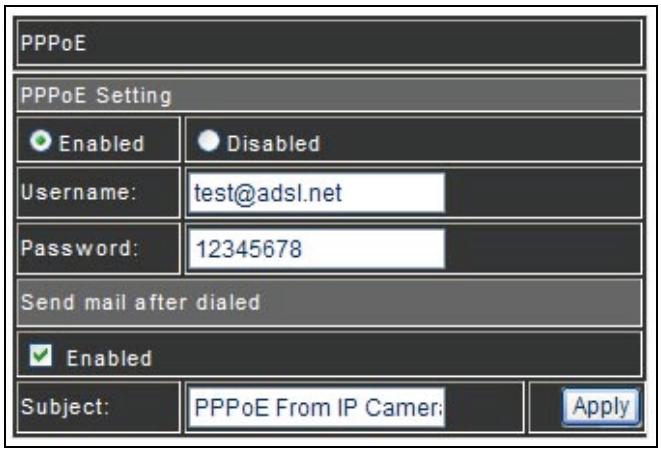
1. IP Setting



IP Vandal Dome supports DHCP and static IP.

- Static IP: Type IP address, subnet mask, gateway, and DNS manually.
- DHCP: Using DHCP, IP Vandal Dome will get all network parameters automatically.

2. PPPoE

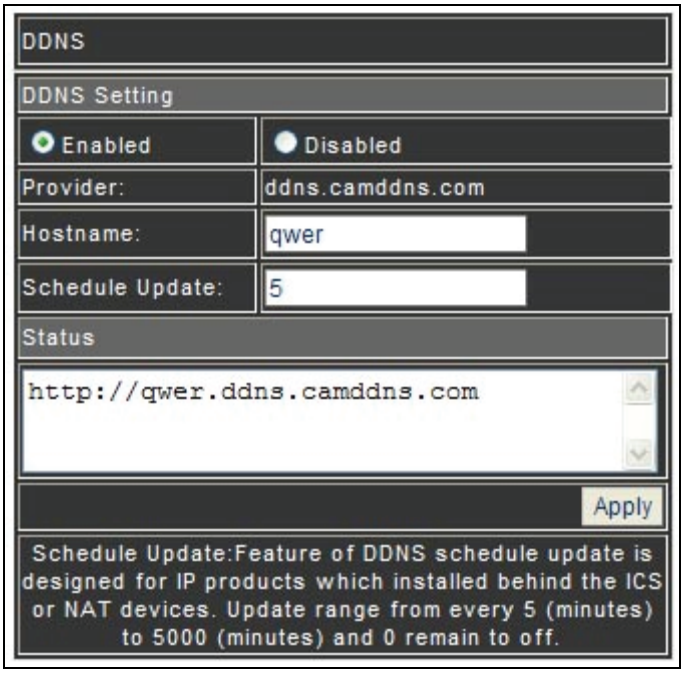


a. Select [Enabled] to use PPPoE.
b. Key-in Username and password for the ADSL connection.
c. Send mail after dialed: If select [Enable], when connect to the internet, it will send a mail with the Subject to a specific mail account. For the mail setting, please refer to “Mail and FTP” settings.

3. DDNS

IP Vandal Dome supports DDNS (Dynamic DNS) service.

a. Camddns service:



i. Key-in hostname.
ii. Set up the IP refreshing rate in “Schedule Update” field.
iii. Click [Apply].

b. DDNS Status
This field will display the message to indicate the status of DDNS:
- Updating: Information update
- Idle: Stop service
- DDNS registration successful, can now log by http://<hostname>.ddns.camddns.com: Register successfully.

- Update Failed, the name is already registered: The hostname has already been used. Please change it.
- Update Failed, please check your internet connection: Network connection failed.
- Update Failed, please check the account information you provide: The server and hostname may be wrong.

C. A/V Setting

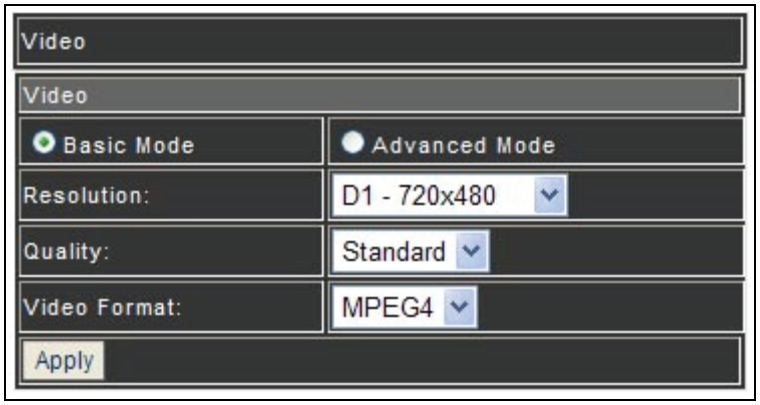
1. Image Setting

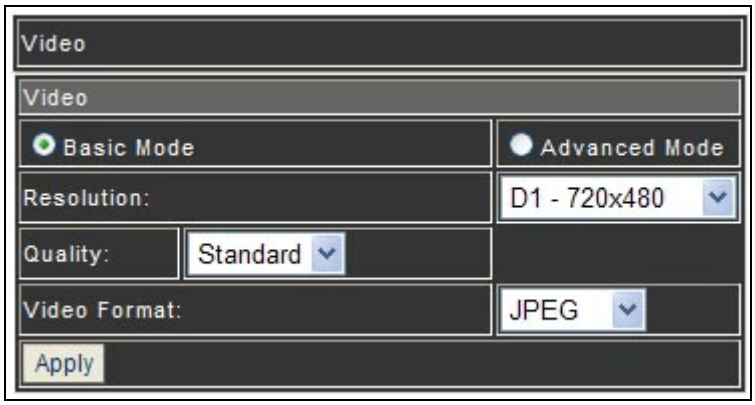
a. Adjust “Brightness”, “Contrast”, “Hue “and “Saturation” to get clear video.

b. Enable/disable the “Back Light Compensation” by selecting ON or OFF.
c. Click on “Default” will restore the values to the factory defaults.

2. Video Setting

a. Basic Mode



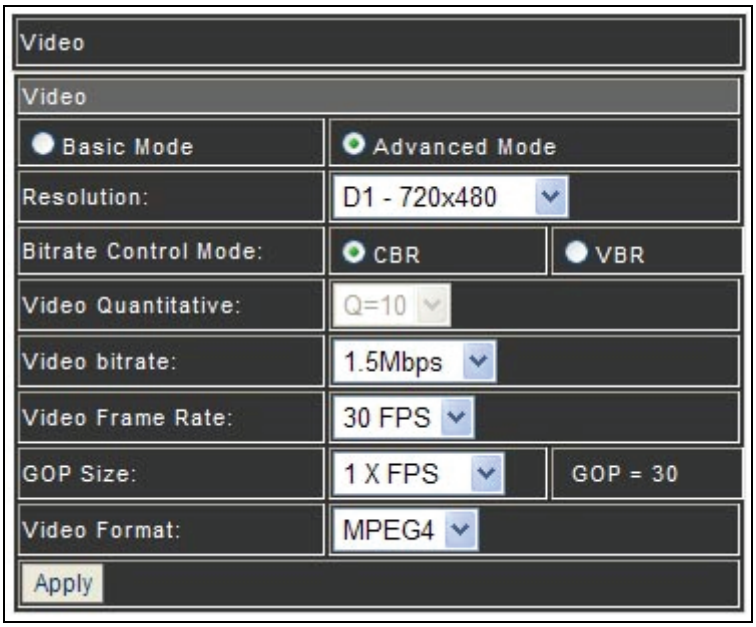


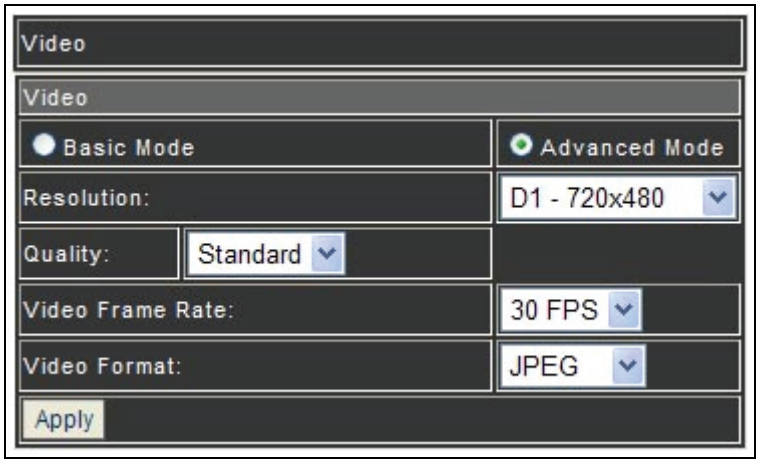
i. Resolution
Choose the resolution:
- Full D1 – 720X480 (NTSC), 720X576 (PAL)
- CIF – 352X240 (NTSC), 352X288 (PAL)
- QCIF – 176X120 (NTSC), 176X144 (PAL)

ii. Quality
5 levels to adjust, the higher the quality is, the bigger the file size is.

iii. Video Format
Select MPEG-4 or JPEG compression.

b. Advanced Mode





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- Full D1 – 720X480 (NTSC), 720X576 (PAL)
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- QCIF – 176X120 (NTSC), 176X144 (PAL)

ii. Bitrate Control Mode (MPEG-4)

There are CBR (Constant Bit Rate) and VBR (Variable Bit Rate) to use.

- CBR：64Kbps~4Mbps
- VBR：Q=4~30

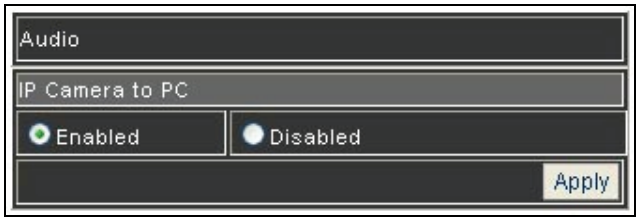
iii. Video Frame Rate
The video refreshing rate per second.

iv. GOP Size
"Group of Pictures". The higher the GOP is, the better the quality is.

v. Video Format
Select MPEG-4 or MJPEG compression.

3. Audio

a. For network camera to local PC, select [Enabled] to start this function.



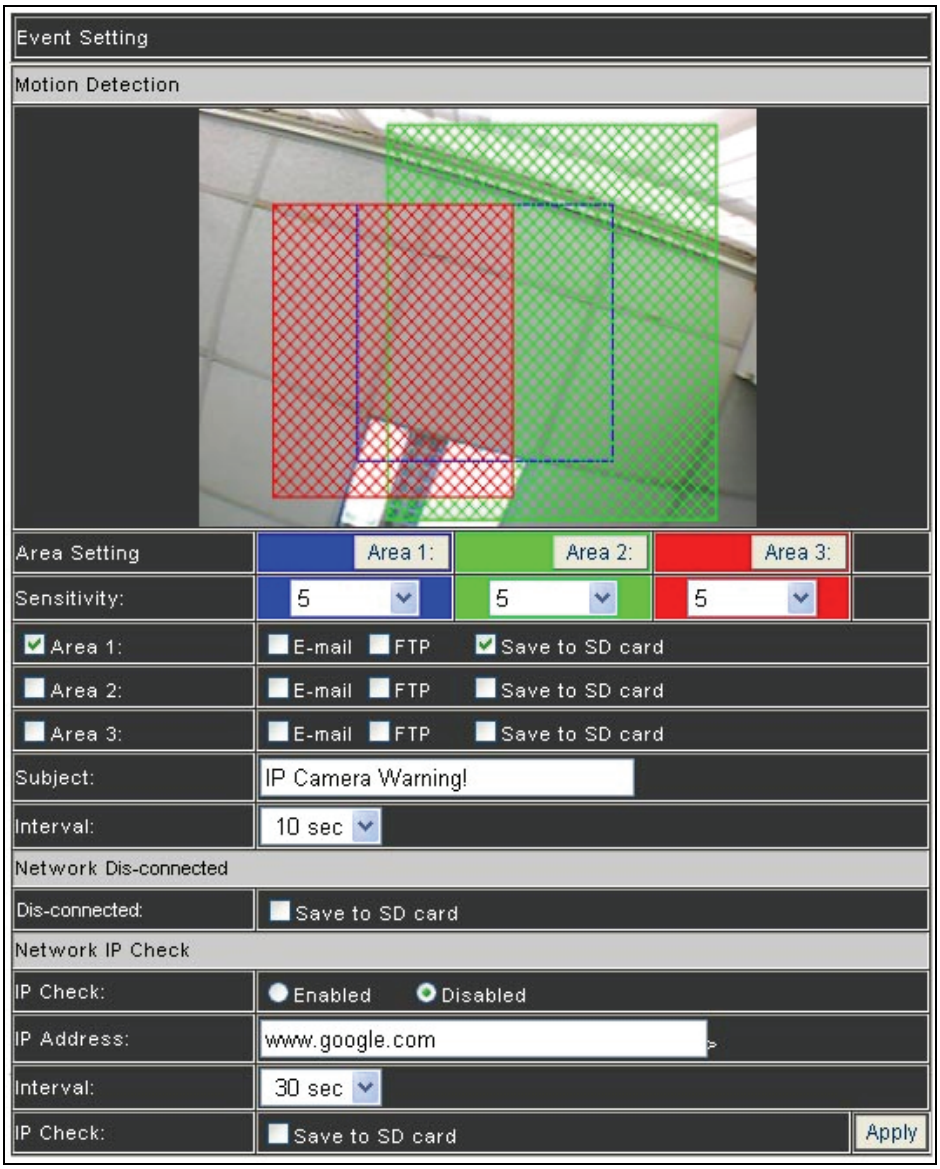
b. For local PC to network camera, check “Chatting” in the browsing page.

The Audio will not be smooth when enable SD card recording function simultaneously.

D. Event List

IP Vandal Dome provides multiple event settings.

1. Event Setting



a. Motion Detection

IP Vandal Dome allows 3 areas motion detection. When motion is triggered, it can send the video to some specific mail addresses, transmit the video to remote FTP server, and save video to local SD card.

To set up the motion area, click [Area 1:], [Area 2:] or [Area 3:] button. Using

mouse to drag the area on the video. Click [Apply] when you finish one area setting, and then set up another area if necessary.
To enable the motion detection, enable the check box of area, and then select the actions when the motion is triggered.

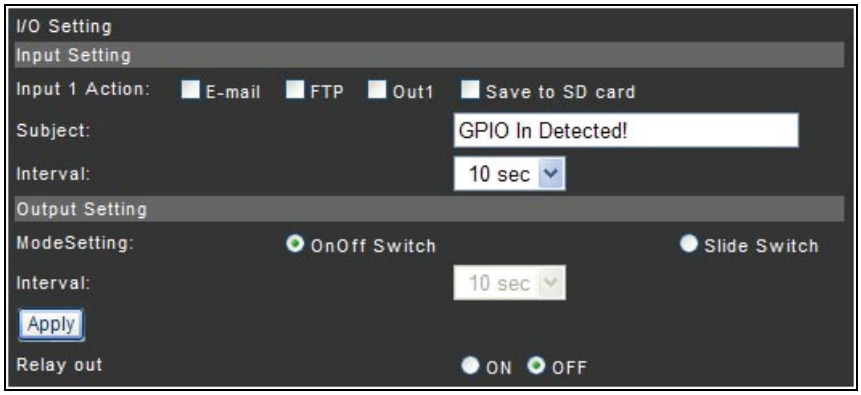
b. Network Disconnected
When the network is down, it will save the video to local SD card.
This function is only enabled in wire connection.

c. Network IP Check
For the use of recording software, IP Vandal Dome supports the detection of this connection. Whenever the connection is down, it records the video to SD card to make sure the video recording is continuous. To use this function:
   i. Select [Enabled].
   ii. Key in the IP address for checking the connection status.
   iii. Select the interval time between the network detections.
   iv. Check the check box of “Save to SD card”
   v. Click [Apply] button.

This function is only enabled in wire connection, and will reduce the performance.

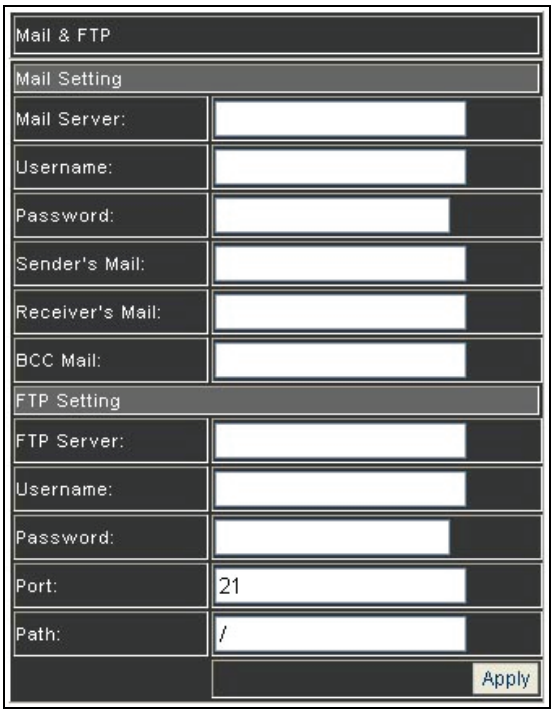
2. I/O Setting

IP Vandal Dome supports one input/ output. When input is triggered, it can send the video to some specific mail addresses, transmit the video to remote ftp server, trigger the relay, and save video to local SD card.



3. Mail & FTP

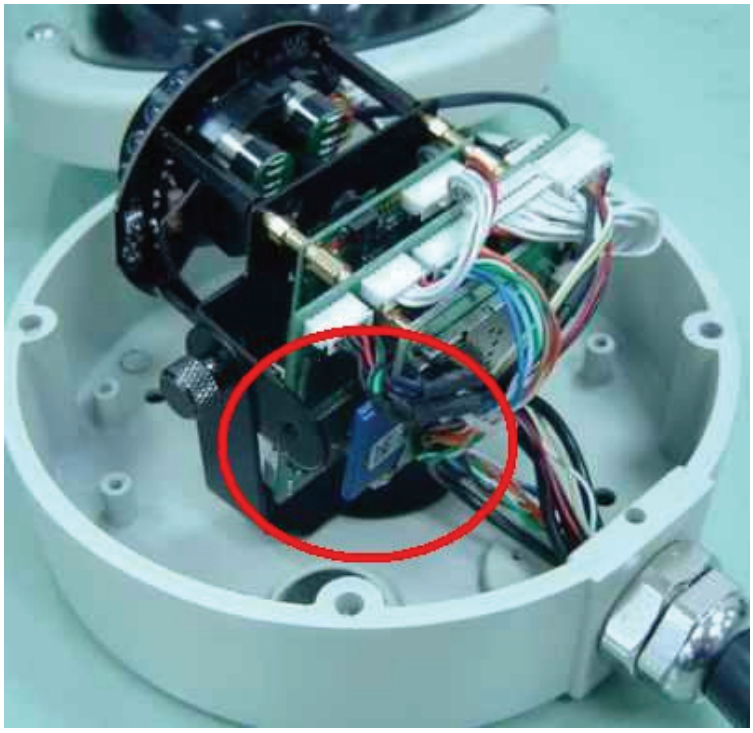
To send out the video via mail or ftp, please set up the configuration first.



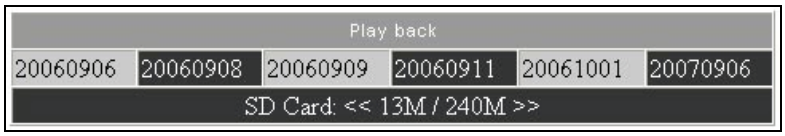
4. SD card

Please Insert SD card before use it. Make sure pushing SD card into the slot completely.

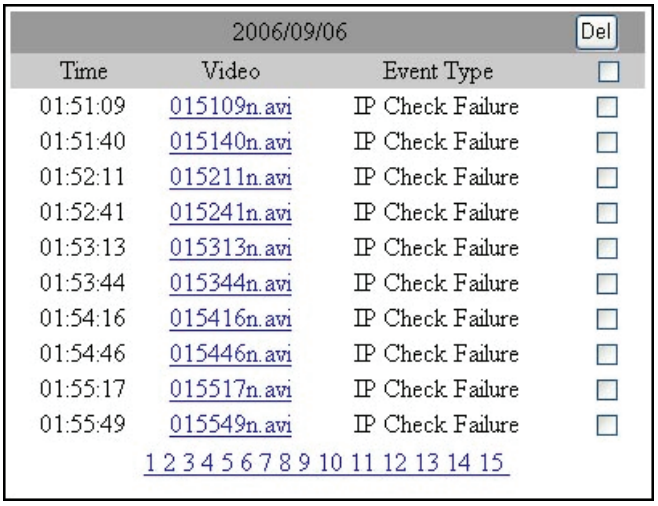
Note: The use of the SD card will affect the operation of the IP Vandal Dome slightly, such as affecting the frame rate of the video.



a. Playback



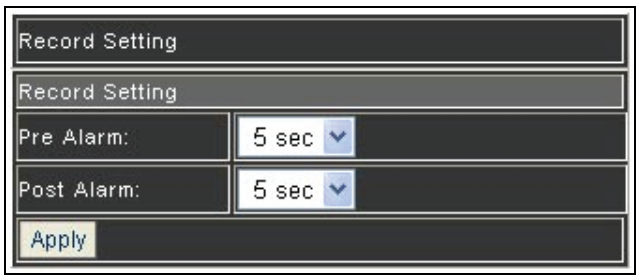
i. It will show the capacity of the SD card. Click the date listed on this page, it will show the list of the video.


2006/09/06
Del
Time
Video
Event Type
01:51:09 015109n.avi IP Check Failure
01:51:40 015140n.avi IP Check Failure
01:52:11 015211n.avi IP Check Failure
01:52:41 015241n.avi IP Check Failure
01:53:13 015313n.avi IP Check Failure
01:53:44 015344n.avi IP Check Failure
01:54:16 015416n.avi IP Check Failure
01:54:46 015446n.avi IP Check Failure
01:55:17 015517n.avi IP Check Failure
01:55:49 015549n.avi IP Check Failure
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

ii. The video format is AVI. Click the video to start Windows Media Player to play it.

iii. To delete the video, check it, and then click Del. When the SD card is full, it will remove the earliest video automatically.

b. Record Setting

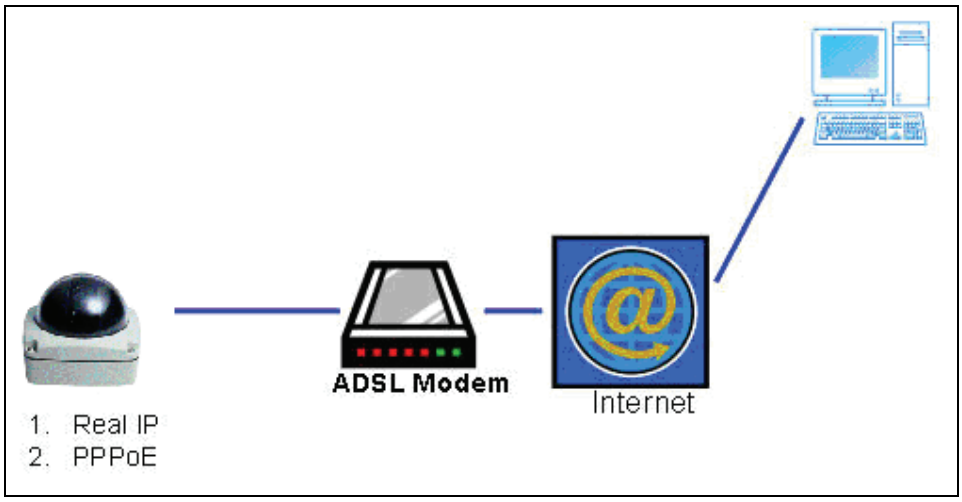


The Pre/ Post Alarm are adjustable in IP Vandal Dome.

Note: It is only defined the playback and recording setting for the event trigger. It's not the same as the normal recording.

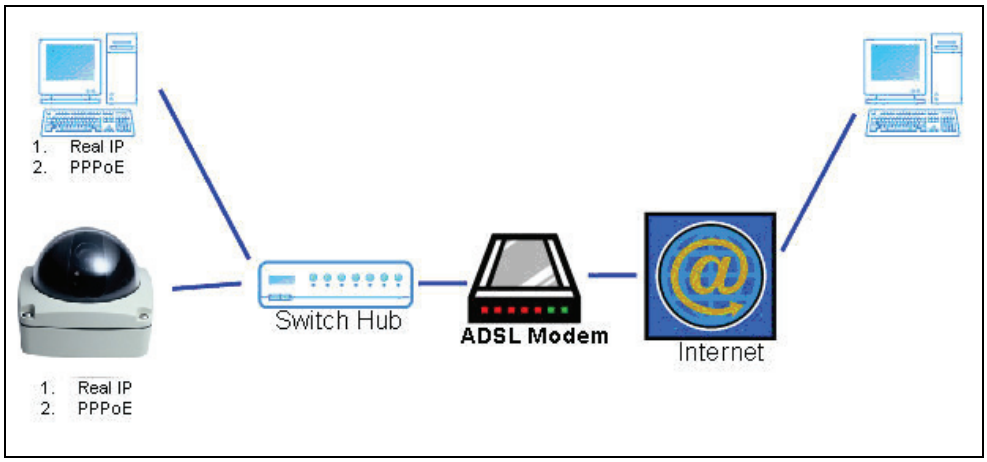
6. Network Configuration

1. Configuration 1



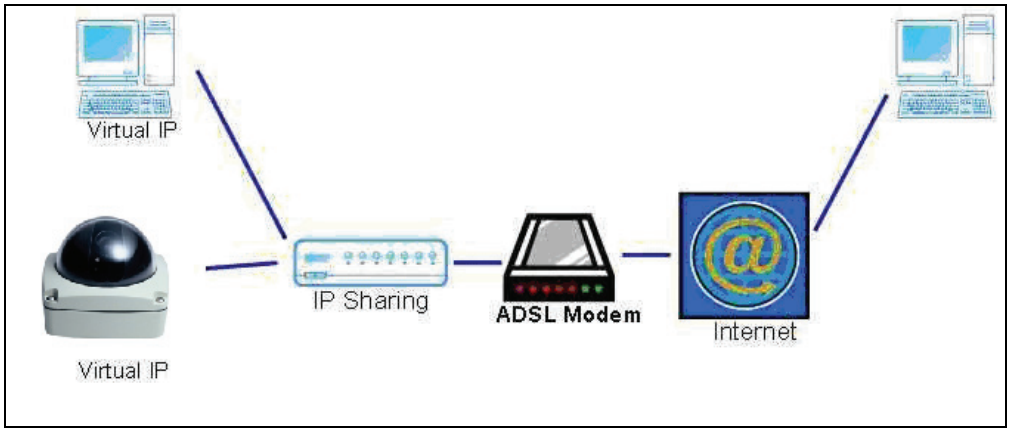
- Internet Access: ADSL or Cable Modem
- IP address: One real IP or one dynamic IP
- Only IP Vandal Dome connects to the internet
- For fixed real IP, set up the IP into IP Vandal Dome. For dynamic IP, start PPPoE.

2. Configuration 2



- Internet Access: ADSL or Cable Modem
- IP address: More than one real IP or one dynamic IP
- IP Vandal Dome and PC connect to the internet
- Device needed: Switch Hub
- For fixed real IP, set up the IP into IP Vandal Dome and PC. For dynamic IP, start PPPoE.

3. Configuration 3



- Internet Access: ADSL or Cable Modem
- IP address: one real IP or one dynamic IP
- IP Vandal Dome and PC connect to the internet
- Device needed: IP sharing
- Use virtual IP, set up port forwarding in IP sharing.

Appendix

The compatible list of SD card

ADATA 4G	OK
ADATA 512M	OK
Blast 128M	OK
Canon 16M	OK
GiGATEK 128M	OK
Kingston 128M	OK
Kingston 256M	OK
Kingston 512M	OK
Kingston 64M	OK
Kingmax 256M	OK
LEXAR Media 16M	OK
Mio Ma 32M	OK
SanDisk 32M	OK
SanDisk 128M	OK
SanDisk 256M	OK
SanDisk 1G	OK
Trancend 256M	OK
Trancend 512M	OK
Panasonic 16M	OK
Panasonic 64M	OK

PRETEC 128M	OK
Photofast 256M	OK
Phast 256M	OK
PK 128M	OK
Q0000 16M	OK
READY 128M	OK
SiliconPower 128M	OK
SiliconPower 256M	OK
TEKQ 256M	OK
TEKQ 128M	OK
Toshiba 32M	OK
Toshiba 256M	OK
Toshiba 128M	OK
TwinMOS 128M	OK
TwinMOS 256M	OK
Traveler 64x2M	OK
Trancend 128M 45X	OK
UMAX 128M	OK
U-TEK 128M	OK